

511/88

# Abstract of the Disclosure

This application discloses a semiconductor optical device apparatus having on a substrate, at least, a compound semiconductor layer containing an active layer, a protection film having a stripe-shaped opening formed on the compound semiconductor layer, and a ridge type compound semiconductor layer formed as to cover the stripe-shaped opening having a smaller refractive index than the refractive index of the active layer, has a feature that a width ( $W_c$ ) at an opening center of the stripe-shaped opening is different from either or both of a width ( $W_f$ ) of the opening front end and a width ( $W_r$ ) of the opening rear end. According to the invention, a semiconductor optical device apparatus capable of operating with a high output, and a semiconductor optical device apparatus having a small beam spot diameter, and the like can be manufactured where the width of the stripe-shaped opening is properly controlled.